



# Mobile money transfer: A focus on the impact and usage

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## Mobile money transfer: A focus on the impact and usage

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Mobile money transfer services emerged in Kenya sometime in the past decade but in 2007 with Safaricom's M-pesa service and M-kesho in 2010. The usage of the service is common in the country among subscribers and also among the unbanked populations in the rural areas.

The purpose of this study was to look into mobile money transfer, its emergence, impact and delve more into the usage among ordinary users. The theoretical part of the study focuses on banking in general in the world and other related services that include mobile money transfers which emerged with trends in mobile telephony.

The relevance of the information presented is to pave way for further studies on topics related to mobile money transfers and its economic significance to the developing nations using the service. Additionally, to give ideas for future studies related to the topic.

The main goal was to get firsthand information from selected respondents representing subscribers who are using Safaricom's mobile money transfer services and their thoughts on the pros and cons of the services.

This was done by issuing a questionnaire with 12 questions to potential respondents and analyzing the data presented. Collecting information related to the topic involved reading past articles, journals and periodicals to lay a foundation for carrying out the study.

The results of the study show that 89% of the respondents prefer using the mobile money transfer service M-pesa while the other 11% prefer using formal banks to carry out their financial activities. They all gave their reasons for their preferences which give insight on the positive and negative sides of mobile money transfers.

In conclusion, the results of this study have potential to be generalized but would have been better if more information was collected from more respondents. The impact of mobile money transfer services has mostly been positive and the usage of the services promote financial aptitude among ordinary users.

Key words: Money transfer, mobile, banking, M-pesa, M-kesho

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## Abbreviations

**SME** - Small and medium sized enterprise

**GNP** - Gross National Product

**ATM** - Automated Teller Machine

**P2P** - Person-to-Person payment

**LTD** - Limited Company

**POS** - Point of sale

**P2P** - Person to person

**SMS** - Short message service

**DRC** - Democratic Republic of Congo

**MTN** - Mobile Telephone Number

**CBD** - Central business district

## 1 Introduction

The evolutions of mobile technology in the years that have passed have given rise to the need in individuals to own mobile phones. Unlike landlines, the popularity of mobile phones rapidly developed and promoted communication in the world. In Africa, mobile technology has been embraced in a great way. Some of its roles include communication, connecting with others and educating the different groups of people around the continent.

One of the evolutions in mobile technology is the introduction of mobile wallets. This is a vague description of mobile banking which basically involves money transfers from one person to other using mobile phone applications. This type of technology has given birth to a new revolution where banking has been simplified and is reaching a wider population of mobile phone users. The users also include the less privileged who had earlier no access to actual bank accounts in the formal banks. (Dovi 2008)

In Kenya, there was an estimate of 1,187,122 mobile phone subscriptions a decade ago which later increased yearly. As of the end of the year 2011, the number had dramatically risen to 26,980,771 (World Bank 2010). This study makes it safe to say that the numbers are increasing on a yearly basis with the emergence of new trends in mobile telephony.

Mobile money transfer was introduced in Kenya in 2007 by Safaricom Ltd. which is a mobile and internet network service provider. It was founded in 1997 and today it is in collaboration with Vodafone group Plc. As of December 2010, Safaricom had employed up to 1500 employees who exclude a large number of agents countrywide. The company has about 17 million subscribers (Safaricom Ltd 2012). Its main office is at the heart of Nairobi and others are spread out in the rest of the country; in Mombasa, Kisumu, and Eldoret.

This thesis takes a brief look into mobile money transfer services. The information presented includes a review of Safaricom's M-pesa service and the use and acceptance of the service in Kenya. Additionally, it outlines how mobile money transfer is being integrated into today's technologically minded society and especially into the ever growing population in Africa and other parts of the world.

The information presented is just a 'tip of the mobile money transfer iceberg' and I hope to delve more into studying this service in the future.

## 1.1 Background of the thesis

Mobile money transfer as the title states is the process of using mobile telephone applications to do actual banking. This involves depositing, withdrawing and saving money in one's account. This type of service also allows users to be able to purchase and sell goods and services in different kinds of business settings. Additionally, users are able to pay their bills through their phones. The main idea behind the emergence of using technology to facilitate money transfers via mobile phones was to create financial awareness to the poorer populations in developing countries, who either had no access to formal banks or could not afford to have a bank account due to expensive rates levied by the banks (Mwangi & Njuguna 2009).

Safaricom Ltd pioneered the text-messaging mobile banking system, M-pesa, in Kenya. "M" is for mobile and "pesa" is a Swahili word meaning money. Three years later, it introduced the loaning savings account for M-pesa called M-kesho. "Kesho" is also a Swahili word meaning "tomorrow". This service is an option for M-pesa users to help them save their money and also get micro-credit (TechMtaa 2010). Safaricom Ltd set the best example for achieving feasibility in mobile money transfer technology and boasts the M-pesa service which has reached a total of 14.91 million people who are now able to deposit, send, receive, loan and save money (Safaricom Ltd 2012). Equally important, users with businesses are able to make payments and do business related transactions through M-pesa. Analogous to this, in Afghanistan, police officers are paid their salary through the local money transfer service, M-paisa (Munford 2010), which is somewhat similar in Tanzania where tax payments are accepted through mobile payments (Tanzania Revenue Authority 2011).

Safaricom's money transfer and money saving services have proven to be a great success in Kenya and its neighboring countries. The use of the M-pesa system has experienced radical growth since its introduction. The reason for this is because of its efficiency to reach a wider population of users and also promoting financial literacy to the young and old alike (Mwangi & Njuguna 2009).

According to an article in The Economist magazine, the result of having so many subscribers and a flourishing system of transferring small amounts of money has made the M-pesa mobile payment ecosystem to contribute to the Kenya's GNP. Why? They say that unlike other countries where the mobile money transfer system is being practiced, Safaricom Ltd, in carrying out its practices, faces minimal operational restrictions and limitations from the Government of Kenya (The Economist 2012,16-17).

## 1.2 Thesis purpose

One purpose of this thesis was to find out whether M-pesa and M-kesho users actually prefer using mobile money transfer services to using banking services from formal banks. It aimed at viewing the extent of the usage among ordinary phone users who would normally use formal banks to do their day to day banking. Additionally, information about the perception of this service in the world today is also presented.

Hopes of being able to have a view of the impact of mobile money transfers and how it has affected the lives of the users were eminent. The aim was to find out if using M-pesa has had a positive impact on the users. The main people of focus for this study were random ordinary phone subscribers who use M-pesa and either have financial awareness or access to financial services and those who do not. Also, the thesis aimed at looking at the extent of knowledge users have with regards to mobile money transfer services and other financial services. These services include those offered by Safaricom Ltd in conjunction with Equity bank in Kenya, formal banks and other available facilities like ATMs to carry out financial tasks.

This thesis delves on Safaricom's M-pesa and M-kesho services. These two are widely used in Kenya and its neighboring countries. The interest in knowing more about these services and finding out whether some M-pesa and M-kesho users rely on and are satisfied with the mobile money transfer services came about after a brief encounter with users.

## 1.3 Thesis questions

The following questions prompted finding more about mobile money transfer services. This thesis aimed at answering these questions and the information presented will bring a clearer understanding of what mobile money transfer is all about.

- I. What is mobile money transfer especially the M-pesa and the usage of the service?
- II. Is using mobile money better than other forms of banking and are the users satisfied with these services?
- III. What are the pros and cons of using mobile money among ordinary users?



## 1.4 Thesis objectives

### Primary goals

The main goals for writing this thesis include:

- Discussing banking in general in the world today.
- Having a general view of other related financial services like use of formal banks and ATM services and how they are used in Kenya.
- Finding out the main idea behind the emergence of mobile money transfers. This involves taking a look back on the forms of banking, how mobile money transfer came into the picture and why.
- Identifying the role of mobile money transfer.
- Going through the features of mobile money transfer. In particular, the different features of M-pesa and how to use the service.
- Finding out how frequent some Safaricom users use the money transfer services and the acceptance of the services by the subscribers.
- Identify and discuss the advantages and disadvantages of mobile banking and point out some differences it has with the traditional form of banking.

### Secondary goals

Some of the secondary goals for writing this thesis include:

- The steps banks in Kenya are taking with regards to mobile banking. This involves the relationship between Safaricom and the local banks in Kenya, specifically Equity bank.
- Taking a look at how mobile money transfer is the most preferred form of reaching a larger population of unbanked individuals compared to other alternatives.

## 2 Theoretical background

The purpose of this is to take a brief look at banking in its different forms and understand the whole concept in general. Additionally, the information presented delves more into mobile money transfer and other related services.

### 2.1 Review on banking

Banking in general is manifested in two forms. One is retail banking which involves banks having direct interactions with their individual customers and providing help to them with monitoring their accounts while depositing and withdrawing money. The other is investment banking which involves banks working with large corporations and businesses with the aim of helping them generate more capital and increase markets.

After the worst part of the economic crisis, the debt bubble encouraged banks to build up on their investment banking which was aimed at increasing markets. However, this move proved that retail banking was and remains to be the main force driving profitability. The reason for this, according to Mc Kinsey, a global management consulting firm, is that retail banking is responsible for generating annual revenue for more than half of the banks worldwide. Investment banking was therefore seen to be more popular as investment managers seem to be paid more. However, this changed after the debt bubble burst and banks started working to improve profitability. Consequently, retail banking gained credit as it progressed with technology that was changing fast. (The Economist 2012, 3)

Globally, money is special to everyone and customers always want reassurance that their money is safe. This is one reason why bank branches are in existence and are thriving in the world today. However, according to *The Economist*, during the past years of banking, bank branches have been seen to be expensive and prone to robbery hence costing a lot. Despite this, the growth of bank branches being erected has not been stunted. They are being used as places where customers and bankers can interact or have personal contact. Here, customers are helped to understand that their money or wealth is safe and are assisted with matters concerning their finances. (The Economist 2012, 4)

Further interaction between banks and their customers has been promoted through smart phones and online shopping where processing payments are done. However, there have been some noticeable changes in behaviour of customers visiting their banks. One of these includes making fewer visits to and from banks as the customers have internet banking services readily available from their computers and smart phones (The Economist 2012, 6). This is more evi-

dent among the younger generation of today whose activities are preferably virtual than physical (Scarborough 2012).

With the introduction of different forms of banking and financial services, mobile money transfer, being one of them, found its home in Africa and is rampant in Kenya and its surrounding neighbours.

#### 2.1.1 Forms of payment

Initially, banks had always provided individuals with payment options and services. Customers have always been able to use different bank branches to make their payments through bank tellers, use ATMs, online banking, mobile and video banking. An example of using branches includes the option of making payments through cheques. The introduction of this form of payment was aimed at helping individuals make large payments through the bank to avoid moving around with large chunks of money. However, in the recent years, evolutionary changes have taken place where introduction of other forms of payments have emerged.

Firstly, they include prepaid cards like visa electron cards, which are commonly used to make payments at different points of sale (POS). Next are person to person (P2P) payments, which involve making payments to another personal account, to family members and friends or to small businesses and other service providers. These payments are intended to cover emergencies like unexpected payments that need to be done fast (FIS Global 2013). Finally, using mobile payment which is another form, where consumers make regular payments at different POS through their mobile phones.

Apart from the previously mentioned, use of ATMs is also very popular in the world today. They have and are still being used as places where individuals withdraw money and make payments. In Kenya, this situation is not any different from the rest of the world as viewed in the chart below.

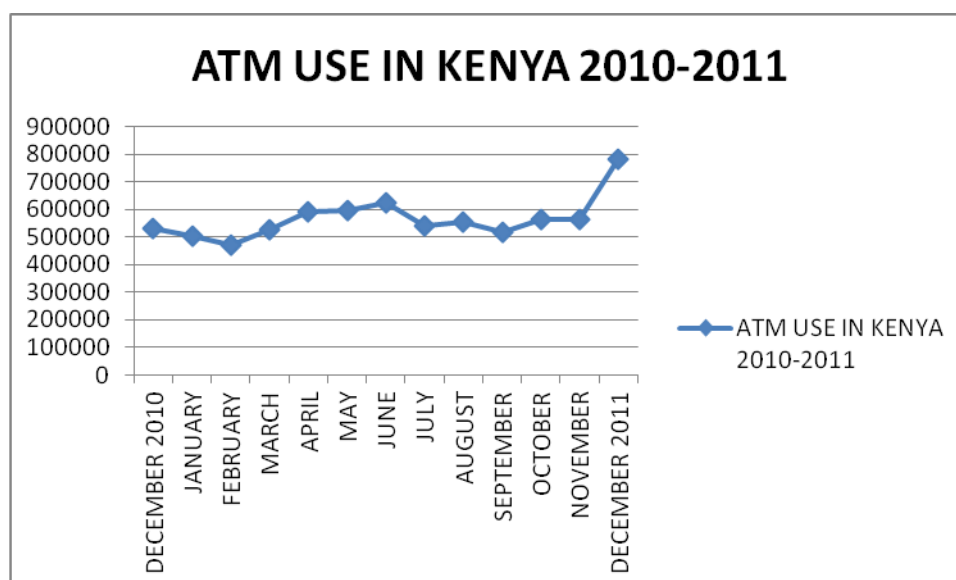


CHART 1 Growth rate of ATM use in Kenya 2010-2011

CHART 1 shows the rate of use of ATM machines in Kenya between December 2010 and December 2011. Although there was a slight drop in the usage during the month of February, the total number rose by 46.3% during the 13 months (Capital markets authority 2012).

### 2.1.2 Internet banking

Over the past few years, the frequency at which customers use bank branches from different banking institutions has reduced because other forms of banking are taking over. Internet banking is one of them. If the banking population should be given an alternative to queuing in the banks to get served, many would gladly embrace a different option like serving themselves online. Nowadays, making trips to and from the bank is something that the banking population does not do as much as long ago when internet banking was not famous. This is common in developed countries where there is easier access to internet and faster developments in information technology as compared to third world countries (The Economist 2012, 3).

In 1999, Wingspan, an internet banking service was launched by Bank One in the USA. Its role was to promote the bank as a new service for marketing their online campaign. The internet

banking service was short-lived as it was shut down after fifteen months. After Wingspan, there had been high hopes for internet banking as it was seen to be a revolutionary idea that would change the traditional banking system. However, online banking services including Citigroup's Citi f/i, America's Net bank and Britain's stand-alone internet bank, Egg, faced a similar fate as Wingspan and were shut down after operating for a few months. Between 1999 and 2007, the fate of online banking seemed to be obvious and was on the lay low for a while. (The Economist 2012, 3)

In Finland, internet banking is quite common as there is accessibility to the internet in the country. This type of banking is quite efficient to users who are able to use the internet as they can access their accounts to transfer and check their financial status and also buy or sell products and services online (Karjaluo 2002).

### 2.1.3 Banking in Kenya

Financial institutions worldwide have the idea that low income earners are bad for business bringing about dilemmas on whether to make this group of people to be customers or not. This in turn has left most poor people in the developing world with no bank accounts and has hindered possibilities for them to save money. The savings of most families are in form of goods and material things which include livestock, crops, land etc (Mwangi & Njuguna, 2009). As mentioned earlier, some banks also levy high rates for start up customers, who find it expensive to have a bank account and choose to be unbanked. For instance, in Cameroon, some banks require 100 dollars deposit to open an account (Etam, 2008).

In Kenya, the introduction of no deposit fees while opening a bank account has allowed more and more people to have bank accounts which have in turn increased saving money and alleviated poverty. Before the year 2000, the government of Kenya, through regulative policies, allowed the penetration of competition amongst telecommunication companies. This competitive nature among companies rapidly revolutionized communication and paved way for the emergence of mobile money transfers which is popular in the country and its surrounding neighbours. (Mwangi & Njuguna, 2009)

## 2.2 Mobile money

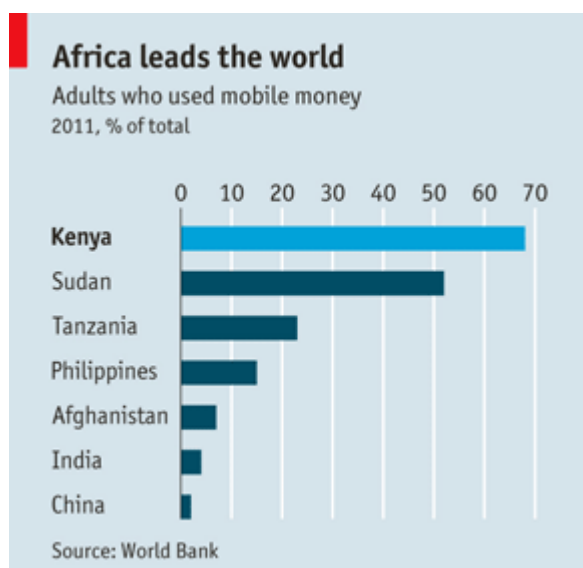
The evolution of banking paved way to using mobile phones to replace bank services that were carried out in the bank. Reaching the unbanked populations through mobile money transfers has led to a widespread of poor populations carrying out financial tasks despite difficulties related to using technology, poor infrastructure, illiteracy and inaccessibility to receive banking services.

### 2.2.1 Mobile based money transfers

In today's society, mobile telephony is taking over and has allowed people to do different things from social networking, art; through photography, information retrieval, shopping and carrying out financial tasks as well. Mobile wallets being one of these favourable features, allows individuals to bank using their mobile phones in remote villages of the developing world. Not only are people able to carry out their financially related activities through mobile money transfers, but also the feature has played an important role in helping to develop digital finance and banking as a whole. (The Economist, 2012)

Indeed, it has proven to be one of the most effective forms of banking. This is mostly in the developing countries, where there is little or no access to internet connections and existence of poor infrastructure that have crippled developments in reaching the unbanked populations (Nzioka & Palakurthi 2010). Another upside of mobile money transfer is that in contrast to the formal banking system, this form of banking in general requires little operational knowledge and has less strict rules. For instance, formal banking has this "know your customer" rule which does not necessarily apply to mobile money transfer. Little information about a user is required from the subscribers who only agree to the terms of use as per the contract of the subscription (The Economist 2012).

The figure below shows some countries around the world whose adults with mobile phones use mobile money.



SOURCE: The Economist

FIGURE 1 Countries using mobile money services

As Figure 1 shows, Kenya has the highest number of mobile money transfer users thanks to Safaricom's M-pesa service.

In Europe, the growth of mobile based money transfers has experienced little or no growth at all (The Economist 2012). On the other hand in Kenya, Brazil and India, telecommunication companies and banks have promoted financial aptitude among individuals in the remote areas to reach a wider population (Nzioka & Palakurthi 2010). As mentioned earlier, Kenya's Safaricom does this through M-pesa services run by agents who include shopkeepers in towns and entrepreneurs running small businesses countrywide.

During its years of operation since 2007, mobile money transfer in Kenya has increased in different areas in terms of number of agents, transactions, transaction value and number of customers.

TABLE 1. Mobile money transfers ending year 2011

YEAR	2007	2008	2009	2010	2011
<b>TOTAL NUMBER OF AGENTS</b>	1582	6104	23012	39449	50471
<b>TOTAL CUSTOMERS (Millions)</b>	1.3	5.1	8.9	16.4	19.2
<b>TRANSACTIONS(Millions)</b>	5.5	62.7	193.5	311	433
<b>TRANSACTIONS' VALUE(Billions)</b>	16.3	166.6	473.4	732.2	1169.2
<b>AVERAGE PER TRANSACTION (KSH)</b>	2983	2655	2444	2354	2700

SOURCE: Capital markets authority 2011 (Kenya)

The table above shows the change in numbers over the years since the use of mobile money was launched in Kenya in 2007.

### 2.2.2 Features of M-pesa and M-kesho services

The use of the M-pesa service begins with the need for an individual to carry out financial tasks such as deposit, send or withdraw money, top up or send airtime to a friend or a loved one, pay bills and check account balances.

To do all these things requires that the users have an M-pesa account which is basically their phone numbers as subscribers of Safaricom and their personal identification. To deposit or withdraw money requires that they are in direct contact with the agents employed by Safaricom to help customers. The agents help the users to load their accounts. In exchange the users get an “e-float” which is a term used to describe the virtual currency available in one’s account that is used to perform different types of tasks with M-pesa using encrypted SMS. Should the users be sending the money available to other people, the receivers in turn can use it to carry out whatever tasks they want with the money or collect it from any M-pesa agent nearby.

The illustrations that follow give a simpler understanding of how to work the M-pesa services.



### 2.2.2.1 Activation to start using M-pesa services

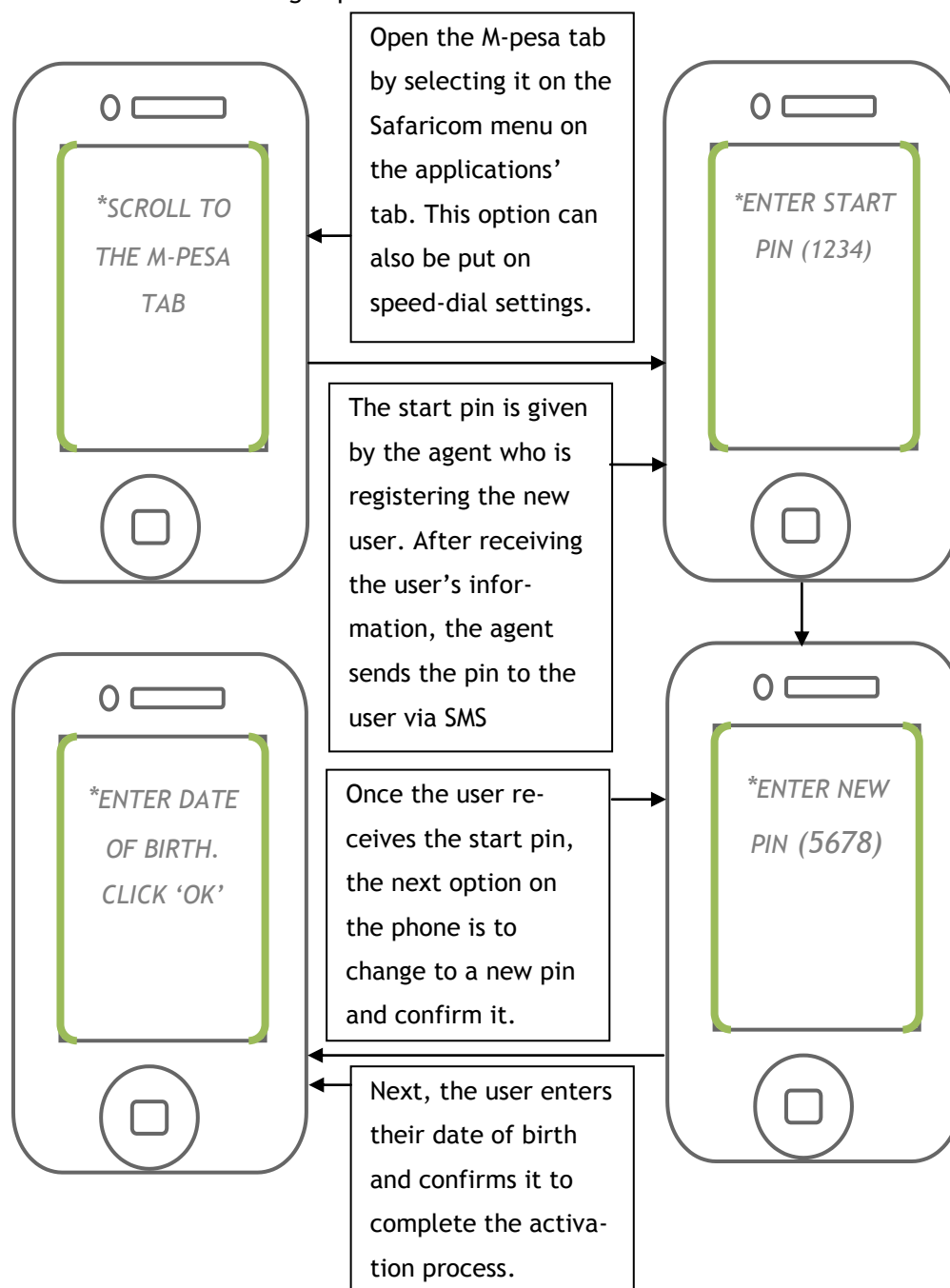


FIGURE 2. Activation to start using M-pesa services

### 2.2.2.2 Depositing money

M- Pesa users are able to deposit money to their accounts as they would normally do in a bank. This process is made possible with the help of the agent who operates as a “teller” and does the transaction for the user. Once the money is deposited with the agent, a confirmation of the transaction is sent via SMS to the user with information of the balance in the account.

## 2.2.2.3 Sending money

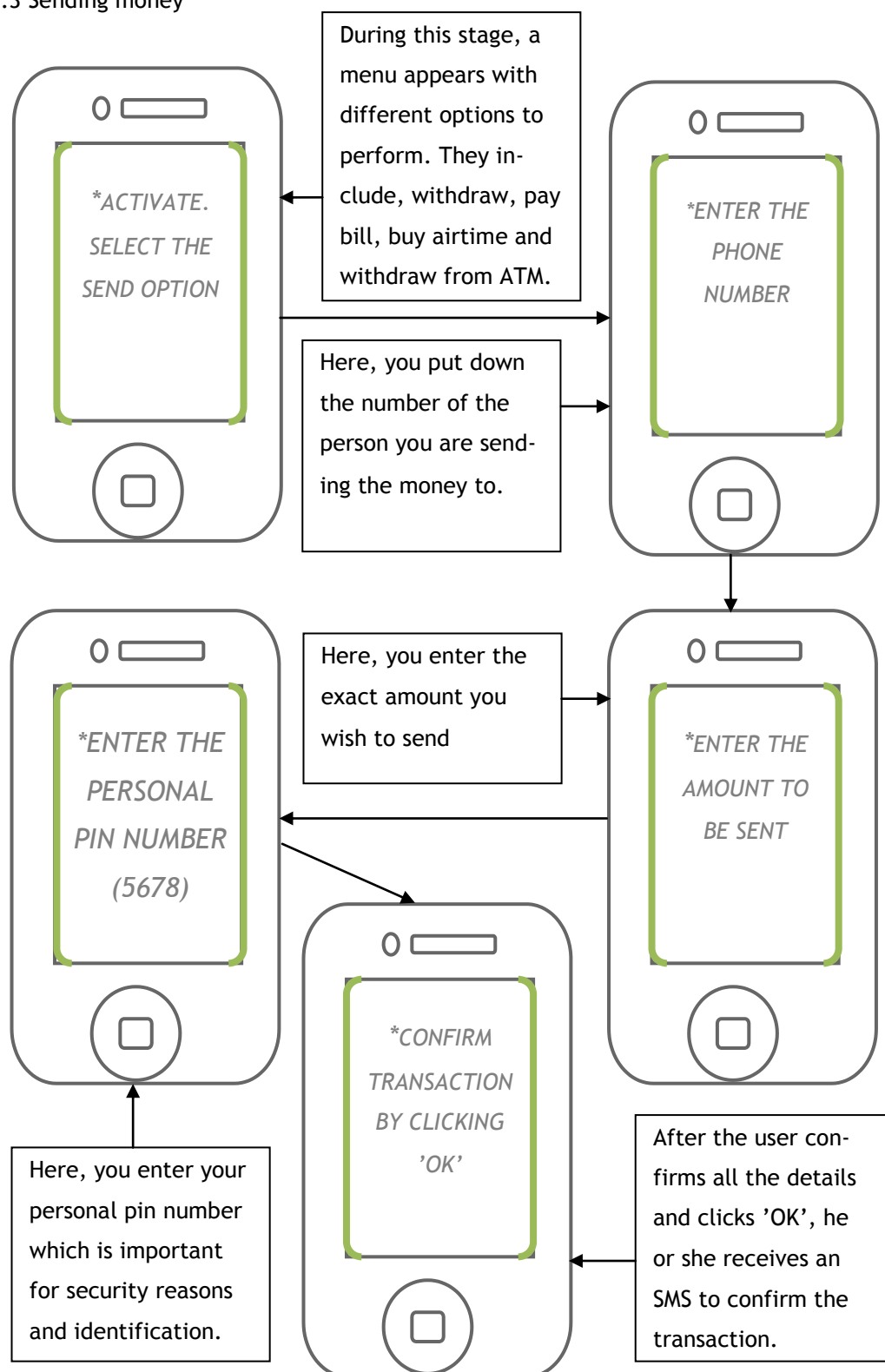


FIGURE 3. Sending money

## 2.2.2.4 Withdrawing money

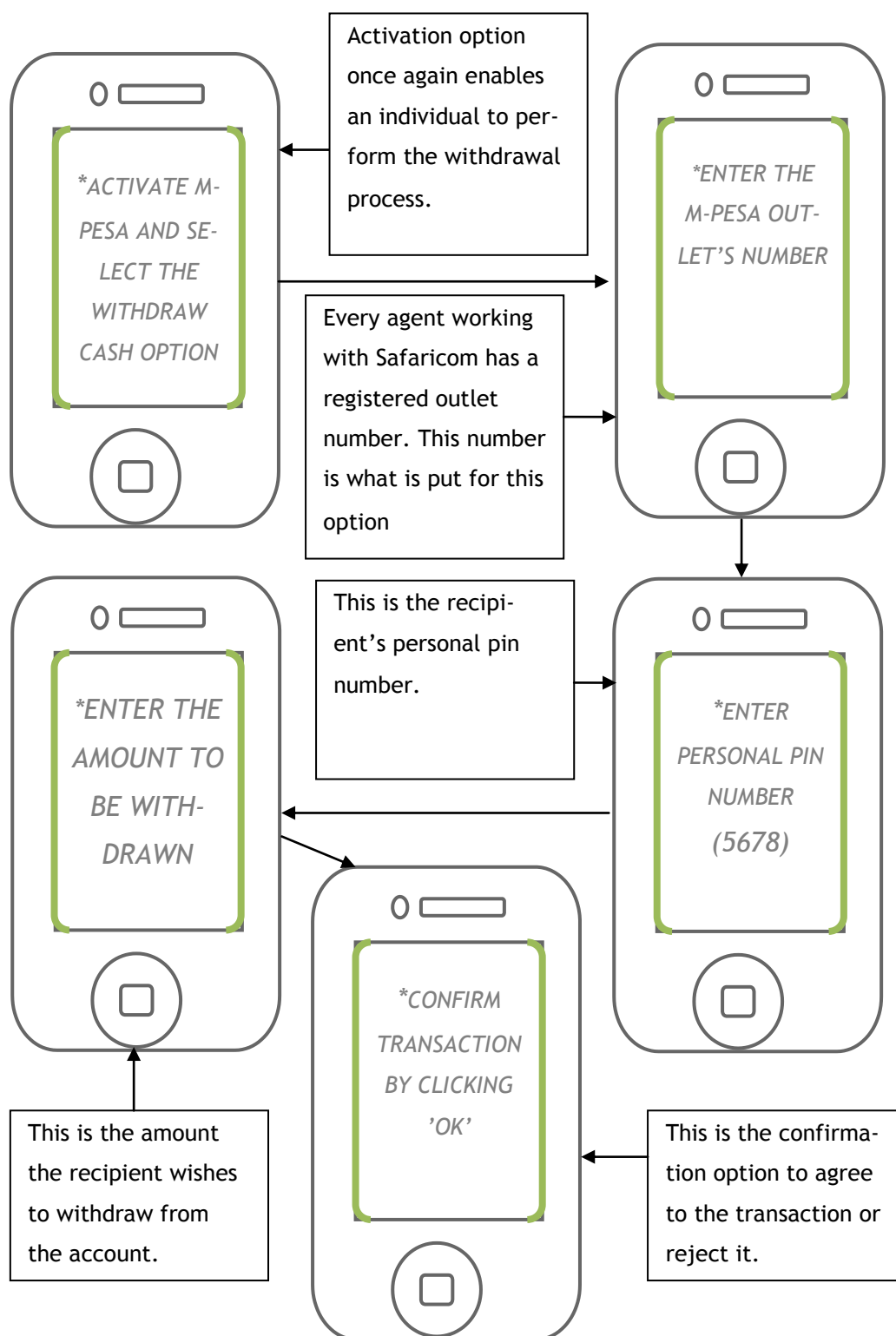


FIGURE 4. Withdrawing money

\*The agent then gives the recipient the money and a confirmation for the transaction via SMS.

### 2.2.2.5 Buying airtime

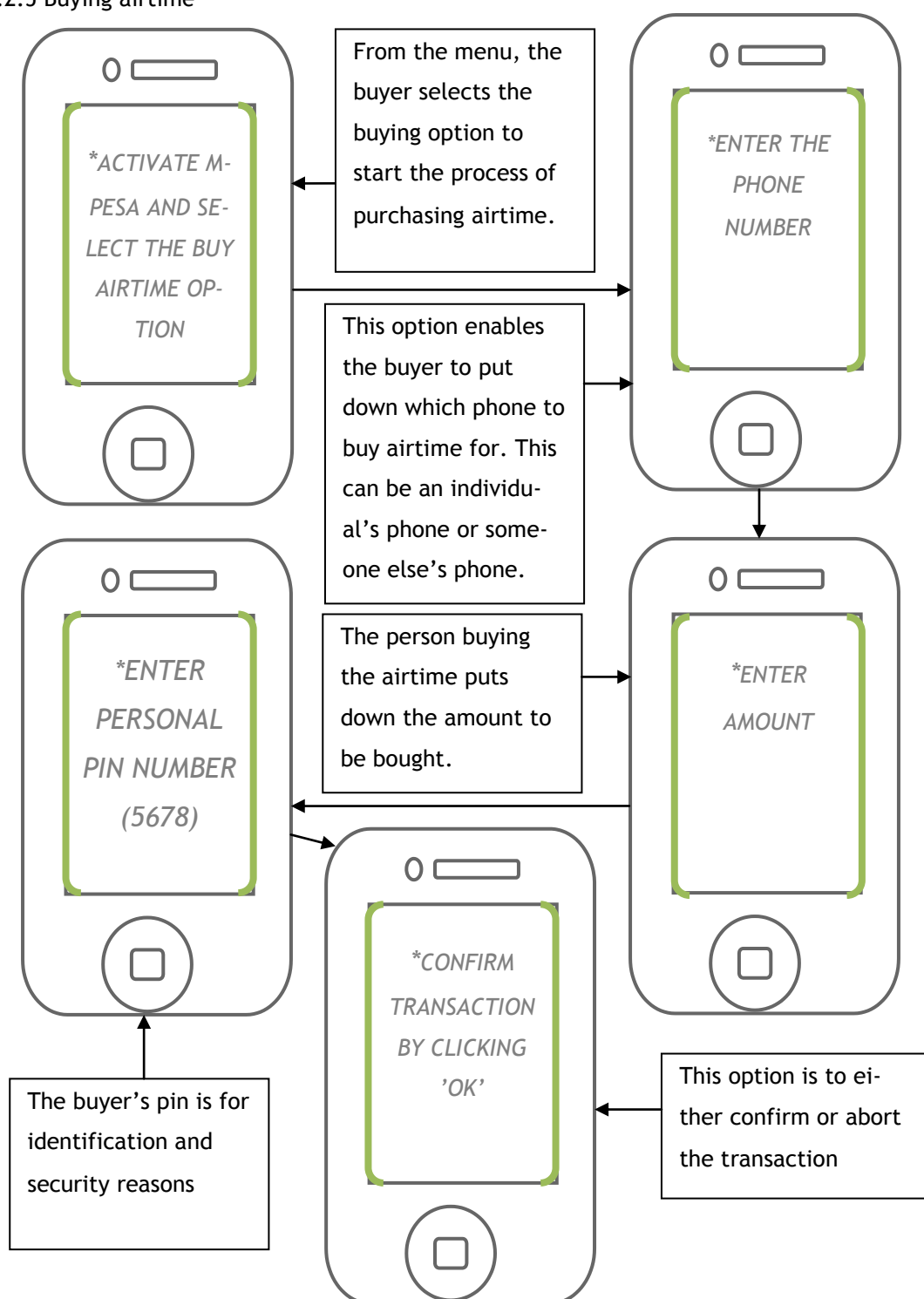


FIGURE 5. Buying airtime

The features of M-pesa as viewed seem very secure as all the tasks carried out are protected using PIN numbers. Additionally, should users need help with the services; Safaricom offers customer service 24 hours a day, 7 days a week. This therefore gives reassurance that the transactions are not fraudulent.

### 2.2.2.6 The M-kesho service

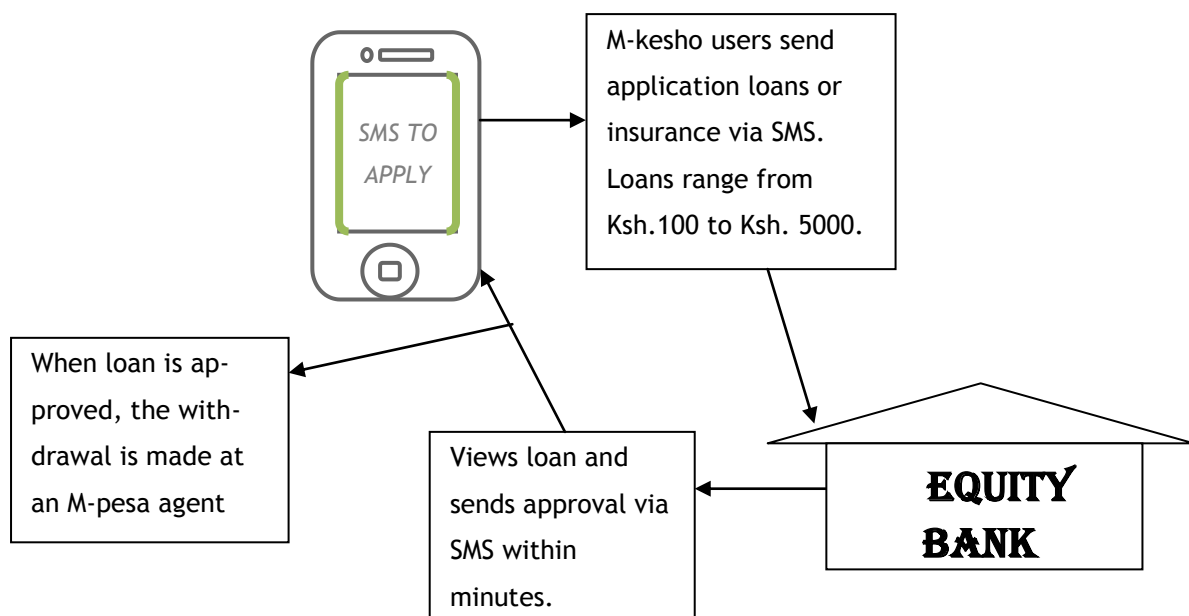


FIGURE 6. M-kesho service outline

### 2.2.3 Use of mobile money in MFIs in Kenya

Microfinance institutions (MFIs) in Kenya are mostly targeted at individuals who seek to acquire small urgent loans that would normally take a longer processing time in the formal banks. Nzioka and Palakurthi (2010, 20) mention that many financial institutions in Kenya are working on giving cheaper financial services in the rural areas in the country. These services are aimed at the poor and as earlier mentioned, the unbanked populations.

Kenya has over 40 banks and 1500 SACCOS, MFIs, insurance companies and the Nairobi stock exchange. All these offer different financial services to the adult population in the country and all follow regulations set by the government of Kenya. The Central bank of Kenya (CBK) and Financial Sector Deepening identified that only 22.6% of the adult populations have access to financial services. (Nzioka & Palakurthi 2010, 20-25)

Despite efforts of offering financial services, MFIs in the past few years have faced some difficulties in offering their services with ease. The most common of these is poor technology. Specifically, the use of technology is limited by poor infrastructure where there is insufficient electricity supply. Also, they face the challenge of illiteracy in the rural areas where knowledge is not exploited and at the same time the use of technology is limited. Other problems include low internet penetration, regulative government policies and few bank branches that inhibit financial literacy among the masses in Kenya. (Nzioka & Palakurthi 2010, 16)

In the end, you find that because of these problems, MFIs turn to using mobile phones to carry out a financial task which is the most preferred way as it is the simplest and quickest way to offer financial services to interested individuals.

#### 2.2.4 Mobile money transfers in Africa

The impact of using mobile phones for money transfers is not a strange topic in the business world today. This phenomenon is fascinating as it is breaking boundaries and geographic constraints to reach borders with unbanked populations. The actualization of mobile money in Kenya, some parts of Africa and Asia is a significant progress to better lifestyles of people in the developing world.

Ondiege (2010, 1-5) talks about mobile banking and states that it has staged a true “revolution” in access to finance. He adds on to state that mobile money transfers introduced by mobile service providers are bringing the unbanked populations in rural Africa into the formal economy using mobile phones. Despite the challenge of illiteracy in the rural African areas, mobile phones are more accessible and easy to use (Aker & Mbiti 2010, 207-208), therefore promoting the rapid spread of financial aptitude among users in the rural areas.

The ubiquity of technology in Africa is limited due to poverty and other factors limiting the effective use of technology. However, use of mobile money is not only evident among the poor populations in Kenya and South Africa but also in Tanzania, Zambia, Uganda, Zimbabwe, Nigeria, Democratic Republic of Congo (DRC) and many other more. The following are some of the other mobile money services in Africa apart from M-pesa: -

- **MTN mobile money:** - To mean Mobile Telephone Network is a service provider with its head office in South Africa. It operates in 21 countries across the Middle-East and Africa. The company offers mobile money services to individuals who have proper identification and are above 16 years of age.
- **CelPay:** - This is a mobile banking company that operates in mostly in Zambia Zimbabwe and Tanzania.
- **Msente:** - This is a mobile money transfer service similar to M-pesa operating in Uganda.

### 3 Methodology

To answer the questions for this study a mini research was done. There were a total of 50 questionnaires used to collect data that were intended for 50 random recipients. There was just one questionnaire prepared without previous drafts. This is because of carefully constructing the questions. The questionnaire was however edited a few times to best suit answering the questions intended for this thesis.

The recipients were not specified for the data collection since the use of M-pesa in Kenya is rampant and a large percentage of the adult population is using the service. Therefore, demographic factors such as age, gender, sex, educational background and social class were not considered apart from average family size while choosing the recipients.

The period for handing out the questionnaires and acquiring them back for analysis was planned for one month due to a fixed schedule and it was October 2012.

Using a questionnaire to collect data seemed a more convenient method for this study to get unaltered information from actual users. The plan was to either post it to different recipients or prepare an online survey. The latter was the preferred resort at first but later changes were made and a written questionnaire was prepared to help with the data collection.

The researcher chose to recruit a close relative to help with collecting the information from random individuals in the Nairobi CBD (Central Business District). The reason for choosing this area was because of its accessibility. The idea was to get selected willing strangers in the streets and shops of the area which has a radius of approximately 400 meters. The recruit's role was voluntary which made it easier to work on collecting the secondary data for this thesis. Some of the recipients chose to answer the questions later and agreed with the recruit to pick the questionnaires at a different agreed time. The recipients were not put into clusters therefore the findings have been analyzed generally according to all the information collected.

The number of questionnaires was limited to fifty because of not being present during the circulation and collection phases. Additionally, factors like living far from Kenya and having no time and money to travel to do a proper research were not favorable at the beginning of the thesis process.

The recruit and the researcher were in constant communication during the data collection phase for follow-up and support so as to keep focus on the intended goal of ensuring all the questionnaires were answered.

### 3.1 Research design and procedure

The research design applied to this study was systematic sampling. The recruit approached every 20<sup>th</sup> person approached and issued the questionnaire to be answered. The 20<sup>th</sup> person was a random choice between the researcher and the recruit. The recipients chosen represented the population using Safaricom's M-pesa and M-kesho services in the Nairobi CBD. This took place during different unspecified intervals in a period of one month.

The secondary data presented in this thesis was extracted from previous articles, periodicals, reports and journals about mobile money transfer and other related topics. They shed a lot of light on the topic and presented a good platform to learn about the service.

### 3.2 Data presentation

The collected data was broken down and analyzed per question asked and summarized following the answers submitted. Use of tables and graphs from quantitative analysis was implemented as well as qualitative methods to simplify the reader's understanding of the findings. The researcher used Microsoft's Excel program to tabulate and make graphs due to its simplicity and availability. The results are presented in the analysis and findings section.

### 3.3 The questionnaire

The questionnaire for this study contained a cover letter to introduce the researcher to the recipient and gives a brief reason for issuing the questions. It had a total of 12 questions to be answered which vary from multiple choices to open ended questions that entail open ended answers. The questions presented were direct and easy to understand. This was proven after a pretest given to six people; friends, a relative and acquaintances, before the distribution to the actual recipients. The questions were mostly one sentence long therefore not cumbersome or boring to read.

### 3.4 Reliability and validity

The data collected from the respondents was firsthand and the reason to have this information was to ensure the validity of the information presented.

The sources of the theoretical background for this study were extracted from reliable articles, periodicals and earlier reports related to the topic.



The questionnaire for this thesis was developed and made from a previous study on the impact of mobile money transfers on microfinance institutions in Kenya by David Nzioka and Professor Puneetha Palakurthi. The questionnaires sent out for this study were only 50. The responses received were 38 and have been analyzed in the next section. The number of the target respondents was low considering the assumption if the number of individuals using mobile money transfer services in the selected area for research is big. Therefore, the reliability of the results presented would be flawed because had the respondents been more, the results would be different.

### 3.5 Analysis and findings

The following are the findings from the questions distributed to the potential recipients. The aim of the questionnaire, as was also made known to the recipients, was to find out more about the M-pesa and M-kesho services. This paper sought to find out the usage of mobile money transfer services among the respondents in order to promote future studies about mobile money in the developing world.

The information from the findings relates to the information presented earlier in this thesis that allows an understanding of the usage of mobile money transfer in Kenya among some of the users.

There were a total of 50 questionnaires of which 38 were answered and received following the schedule set for this phase. From the other twelve, three were not returned and 9 were answered but got lost in the mail.

Below is a breakdown of the findings from the data available.

#### ***1. How did you find out about mobile money (M-pesa and M-kesho) services?***

The purpose of this question was to find out about how the knowledge of using mobile money was spread to individuals using the M-pesa service. The replies were as follows:

TABLE 2. Source of information

Source of information	Responses
Family member	6
Friend	2
Radio or TV advert	29
Other	1
Total	38

The table above shows the responses regarding the source of information about the mobile money services.

***II. How many people are there in your family?***

The reason for asking this question was to get the average of the number of individuals in the families of the respondents using the M-pesa and M-kesho services. This demographic factor was important to have a rough view of the respondents' family size. The average number of people from the 38 families represented was 5.

***III. Out of those mentioned how many use M-pesa or M-kesho services?***

This question was set to test the popularity of the service among the families represented by the respondents. The question was not specified to nuclear or extended families therefore the answers received were for all family type.

The responses were exactly 1, 2 and 3 members and the findings were as follows:

TABLE 3. Number of family members

Number of family members	Responses
1	1
2	20
3	17
Total	38

The table above shows the number of family members of respondents using M-Pesa and M-Kesho services

#### IV. When did you start using M-pesa?

The M-pesa service was launched in Kenya in the year 2007. The service, as mentioned earlier, was integrated into the Kenyan community and has been growing ever since.

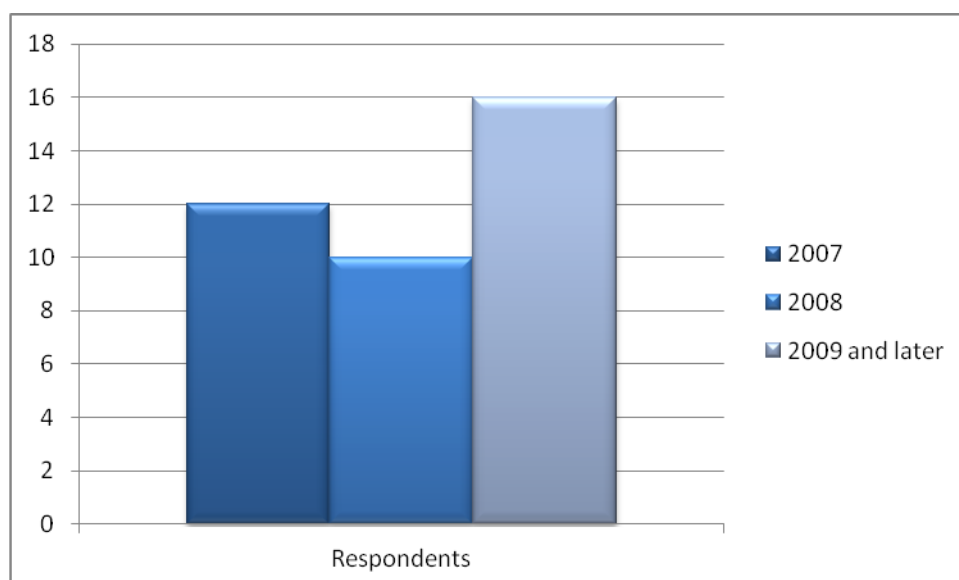


CHART 2. Starting years

The previous chart shows the beginning year the respondents started using the mobile money services.

It shows the responses from the survey where most of those who replied started using the money transfer services two years after the launch by Safaricom.

**V. Do you know of the M- kesho services?**

The M-kesho service was an additional support service for M-pesa which was to offer banking services to users of M-pesa to help them secure financial stability for the future. The service was introduced approximately 3 years after the launch of M-pesa (TechMtaa, 2010). The purpose of this question was to find out the level of awareness of the service among M-pesa users.

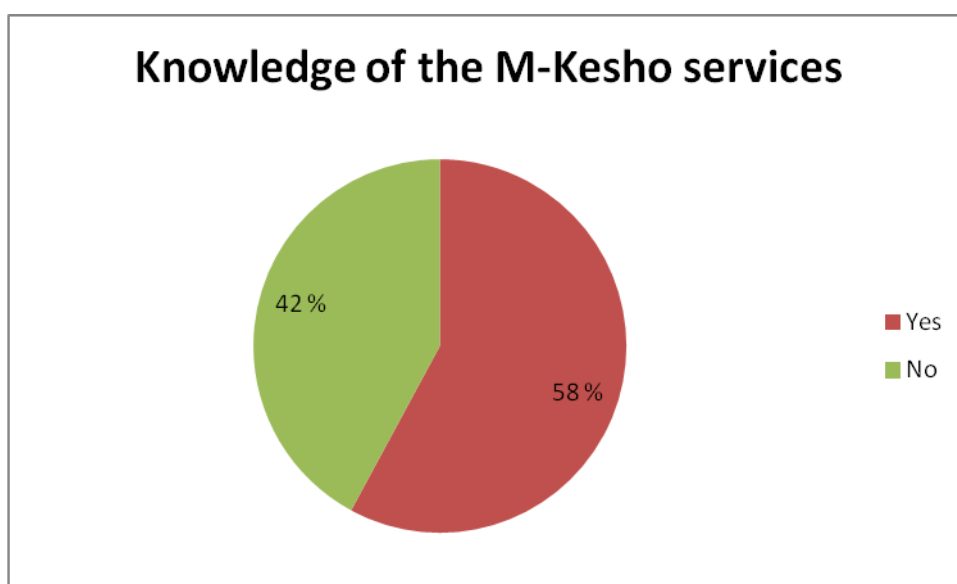


CHART 3. Knowledge of M-kesho services

The chart shows the percentages of the respondents about the knowledge of the M-kesho service.

**VI. If 'Yes', are you using the M- kesho services or saving your money in other banks?**

Despite using mobile money transfer services, users still have the right to make choices about their money transfer practices. The purpose of this question was to determine whether M-pesa users are using the M-kesho services or are still using the formal banks to do their banking.

Out of the 58% who answered 'Yes', the results were as follows:

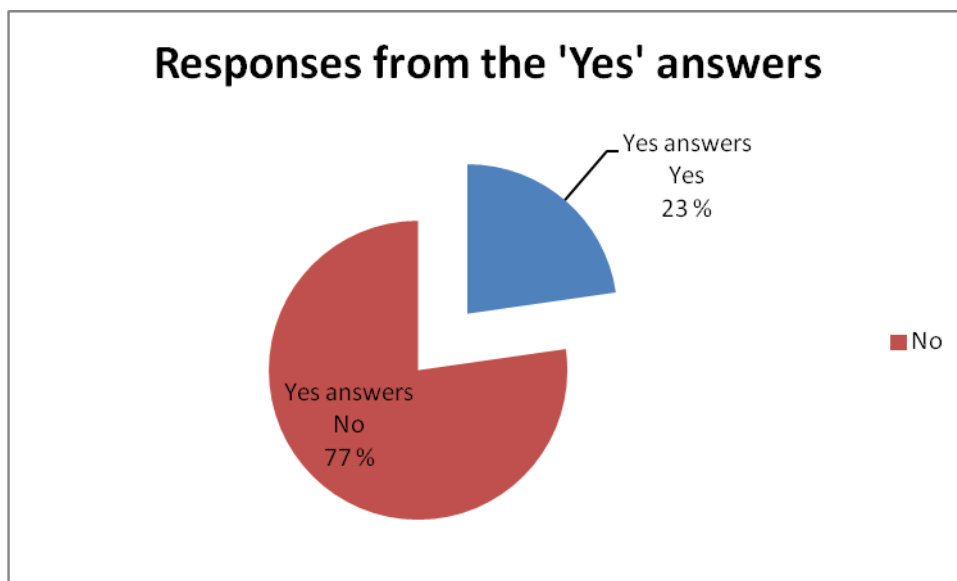


CHART 4. Responses from the 'Yes' answers

The responses were about the knowledge of M-kesho services and whether the respondents are saving money with the service.

The chart above shows that 77% of the respondents who answered 'Yes' seem to know of the M-kesho service but are not using the service to save their money. The other 23% know and are using the service to save their money.

### **VII. Where do you top up your account?**

Safaricom LTD, while recruiting agents to exclusively run the M-pesa retail outlets, also allows SMEs to act as agents while running their businesses simultaneously. The answers of the recipients were as follows:

TABLE 4. M-pesa service place

M-pesa service place	Responses
At a local business e.g. kiosk	2
From an M-pesa Agent	36
Other	0
Total	38

TABLE 4 shows the places where the respondents top up their accounts. The numbers of respondents who top up their accounts from exclusive M-pesa agents and not from local businesses seem to be shockingly more than expected. This shows the popularity of the M-pesa shops that are exclusively offering the services provided by Safaricom.

### **VIII. What type of tasks do you do with the money in your M-pesa account?**

The features of mobile money transfers vary and are beneficial to users depending on different needs presented at different times. The following is the summary of the common tasks performed by the respondents with their topped up M-pesa accounts:-

- Buying credit or airtime and internet bundles. This is for making day to day phone calls or sending text messages. Internet bundles are subscriptions to use the internet offered by Safaricom to its users. Individuals with phones that can use the internet are able to subscribe and have the services at their disposal on their phones.
- Receiving and sending money to and from friends and relatives.
- Paying bills for electricity, water and rent. Some of the answers given included paying debts and school fees which are all just part of making day to day payments.
- Shopping. Users mentioned that they are able to use M-pesa in different POS while doing their regular day to day shopping.
- Saving money to their M-kesho accounts.

**IX. How many times in a week do you do any of the tasks mentioned above?**

The frequency at which M-pesa users use the service varied among the recipients. The purpose of this question was to see how popular the service is among the users and its importance to them. The results were as follows:-

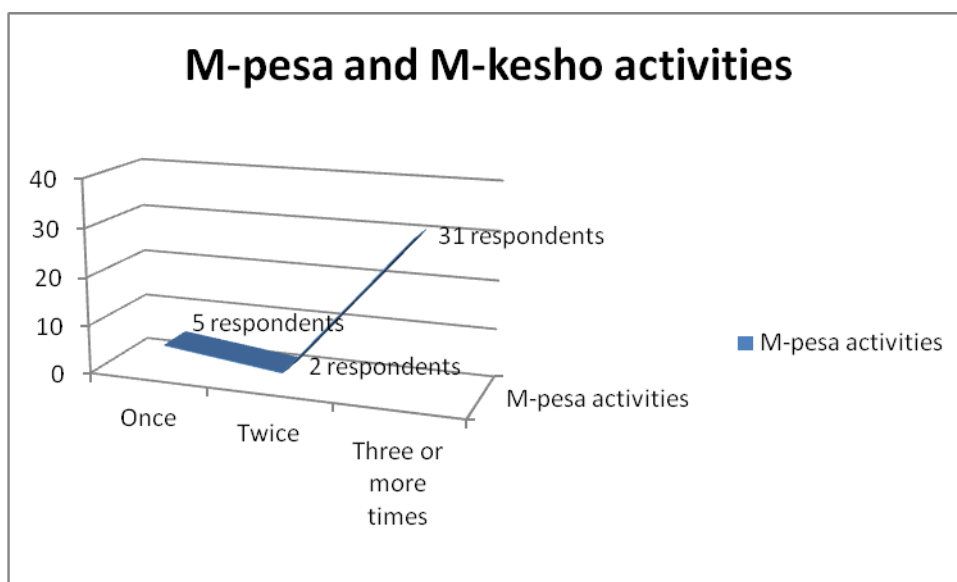


CHART 5. M-pesa and M-kesho activities

The chart above shows the frequency at which the respondents carry out tasks using M-pesa and M-kesho services. As shown, most of the respondents are frequent users as they seem to use the services 3 or more times in a week.

**X. Do you prefer using M-pesa than the bank or other banking services to do your banking?**

This was of one the most important questions presented. The aim was to get the respondents' view on using the money transfer service in the future. The responses were as follows:

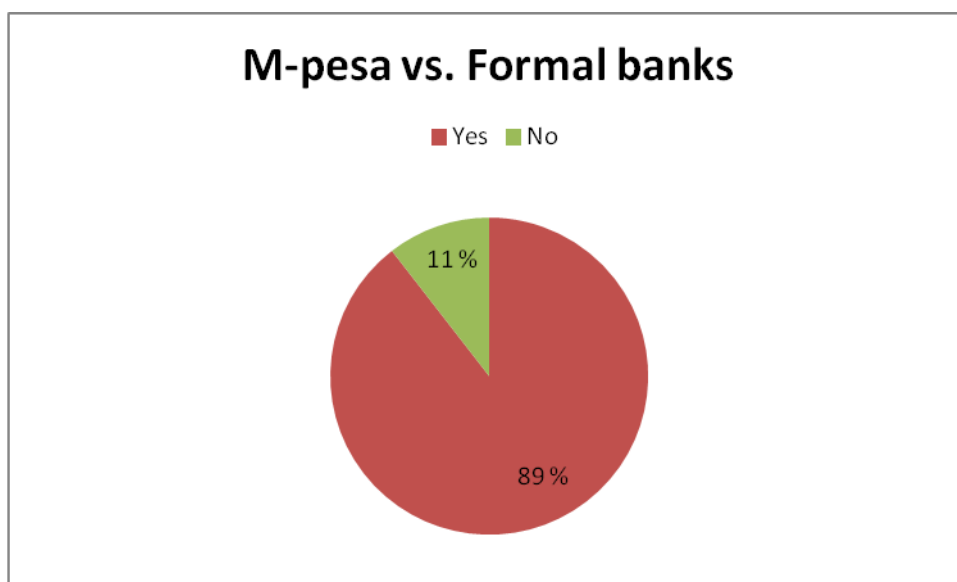


CHART 6. M-pesa vs. formal banks

34 of the respondents said they would continue using the service in the near future while the other 4 would not. The reasons are outlined below for both answers.

**XI. Give reasons for your answer above.**

Mobile money transfer service, since the emergence, has been viewed to have its pros and cons. According to those who answered 'Yes' in the previous question, the following are some of the positive reasons the recipients presented which can be viewed as some of the advantages of mobile money transfers. They include:-

- There is no need to move around with liquid money which some find it risky or cumbersome. It is therefore one of the safest way to carry large amounts of money.
- Using M-pesa is time saving because it scrapes away the need to go to the bank only to find queues forcing people to wait to be served.
- Mobile money transfer is the fastest and easiest way to send money.
- The service has minimal charges compared the banks which levy higher transaction rates. Therefore it has been termed as cheap and affordable.
- Mobile money transfer is convenient because it caters for impromptu needs which can quickly be solved via mobile phone.



- Allows immediate access to money 24hours a day. One respondent gave the example of the father, a farmer, who is able to monitor his money and do transactions in the comfort of his farm which is far away from a nearby bank in the countryside.

According to those who answered 'No', the following are some of the negative reasons presented. These can be stated as the cons of mobile money transfers. They include:-

- Formal banks are much safer than M-pesa retail outlets where money is kept. There have been incidents of countless robberies on M-pesa outlets causing issues on insecurity and fear among agents.
- Users make fewer visits to the formal banks. This was a reason given by a recipient who prefers the idea of keeping money in the bank and going there as well.

***XII. Do you plan to continue using the M-pesa and M-kesho services in the near future?***

The purpose of this question was to find out whether the users plan to keep using the services before the emergence of any other new technology related to performing financial tasks among the respondents.

Out of the 38 answered questionnaires, 100% of the respondents answered that they would continue using the services in the future.

## 4 Discussion

Looking back at the beginning of this study, the main motivation was to find out from the respondents on whether mobile money transfer services are better than other forms of banking and the pros and cons of mobile money transfers. Issuing questionnaires and using the direct answers from respondents shed light on these areas.

Additionally, the relevance of formal banks in the financial industry was another issue that raised curiosity for this study on whether mobile money transfers are threatening the existence of formal bank branches.

The rampant growth of using M-pesa and M-kesho services makes it possible for ordinary people to have easy and accessible options for carrying out financial tasks. The findings revealed that all the respondents carry out financial tasks weekly via mobile money transfer services which is a highlight that the use of mobile money plays a vital role in the daily lives of these users. This in turn, according to the literature studied and presented in this thesis, seems to be a catalyst for financial inclusion among ordinary users and those related to them. In addition to this, the fact that these people plan to use the service in the near future, gives an implication that they are pro the service and are satisfied. However, most of the information that the researcher came across while doing this study were anecdotes and views about the positive impact of mobile money transfers to the unbanked populations.

The researcher did not come across much information echoing on the negative side of using mobile money transfers. This was however viewed from the findings as some of the respondents mentioned that they prefer using formal banks. It came as a surprise to the researcher as the initial perception was vice versa. The recipients who did not prefer mobile money transfer services gave their reasons ranging from it not being safe and also having the mindset of using formal banks. This shows the significance of having bank branches and questions the safety of the money transfer service outlets.

Most of the respondents said that they started using the services two years after the M-pesa money transfer service was launched. This finding raised some questions on whether some people still do not know of the money transfer services and have no access to financial services.

Generally, the findings from this study were important as they questioned the use of mobile money transfer services more which could pave way for further studies in the future. Some ideas for further studies that came about while doing this study were as follows:

- Study financial exclusion in the developing world and the barrier it causes for eco-

conomic development in the affected areas so as to find solutions for this problem.

- Look more into the negative impact of the emergence of mobile money transfer services.
- Delve more into the M-kesho financial service and the solutions it offers to the users with relation to banking and the balance of profit between Safaricom Ltd and Equity bank in Kenya.

## 5 Conclusion and recommendations

This study was an opportunity to understand the M-pesa and M-kesho services and the important role they play in the lives of ordinary users. It is amazing how the mobile payment ecosystem has spread even to people with limited financial knowledge. This could probably mean that there are endless opportunities to develop related mobile phone services that can help populations with such characteristics as illiteracy and poverty.

The use of mobile money transfer services has mostly had a positive impact on the users promoting financial aptitude and making life easier for the users in terms of carrying out financial tasks, which is also prompting the usage of the service among users. This is thanks to the emergence and evolution of mobile phones and trends that came with mobile telephony.

The study took a long process and having other commitments made it somewhat effortful to effectively carry out a proper research. Therefore, it is recommended to exclusively engage oneself in any research work as the centermost point of focus.

With relation to the topic of this research, for the purpose of attaining more solid results, a bigger number of respondents should be selected. This is because the use of mobile money transfer services in Kenya is a household topic and as earlier mentioned, a large percentage of Safaricom subscribers are using the service both in the rural and urban areas.

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## Appendices

### Questionnaire

Dear Respondent,

My name is Otieno Linah Omino. I am a business management student at Laurea University of applied sciences in Finland. I prepared this short questionnaire to know more about mobile money transfer and the impact it has caused since its launch.

You have been chosen to answer some few questions and your responses will be highly appreciated. Your responses will help me in writing my thesis which is about the impact of mobile money transfer and will be focusing on Safaricom's M-pesa and M-kesho services. Another purpose of your answers is to help me understand a few concepts of M-pesa and M-kesho services.

I would like to thank you in advance for your cooperation.

Looking forward to your reply!

Best regards,  
Otieno Linah Omino

Please mark the most appropriate answer from the ones provided.

1. How did you find out about mobile banking (M-pesa and M-kesho services)?

- a) Family member
- b) Friend
- c) Radio or TV advert
- d) Other (specify)\_\_\_\_\_

2. How many people are there in your family? \_\_\_\_\_

3. Of those mentioned how many use M-pesa or M-kesho services?

- a) 0
- b) 1
- c) 2
- d) 3 or more

4. When did you start using M-pesa?

- a) 2007
- b) 2008
- c) 2009 and later

5. Do you know of the M- kesho services?

- a) Yes
- b) No

6. If 'Yes', are you using the M- kesho services or saving your money in other banks?

\_\_\_\_\_

7. Where do you top up your account?

- a) At a local business (e.g. Kiosk)
- b) From an M-pesa agent
- c) Other (specify)\_\_\_\_\_

8. What type of tasks do you do with the money in your M-pesa account? Write as many as you want.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. How many times in a week do you do any of the tasks mentioned above?

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10. Do you prefer using M-pesa than the bank or other banking services to do your banking?

a) Yes

b) No

11. Give reasons for your answer above.

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12. Do you plan to continue using the mobile banking services in the near future?

a) Yes

b) No